**DOCKET NO.:** FCI-2706/C3363 **Application No.:** 10/621,288

Office Action Dated: November 29, 2004

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1. (Previously presented) A contact for an electrical connector, the contact comprising:
  - a) a first contact leg;
- b) a second contact leg arranged in a substantially mirror relationship with the first contact leg; and
- c) a connecting member extending between and being integral with the first contact leg and the second contact leg;

wherein each of the first contact leg and the second contact leg includes a mating portion for engagement with one of a pair of spaced apart circuit board through holes disposed in a single circuit board, the mating portion comprising an elastically deformable beam for imparting a normal force onto a wall of a circuit board through hole upon engagement of the mating portion with a circuit board, and

wherein the elastically deformable beam includes a shoulder region for limiting insertion depth of the mating portion into a circuit board through hole.

- 2. (Original) The contact of claim 1, wherein the elastically deformable beam includes a hinge that facilitates elastic deformation of the elastically deformable beam.
  - 3. (Canceled)

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- 4. (Previously presented) The contact of claim 1, wherein a hinge is formed in the shoulder region.
- 5. (Original) The contact of claim 1, wherein the mating portion further comprises a second beam extending from the elastically deformable beam.

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6. (Original) The contact of claim 5, wherein an intersection of the elastically deformable beam and the second beam defines a discrete engaging area such that friction between the contact mating portion and a circuit board through hole is minimized.

- 7. (Original) The contact of claim 6, wherein the second beam includes a second discrete engaging area that is transversely offset from the discrete engaging area.
- 8. (Original) The contact of claim 1, wherein the mating portion includes first and second discrete engaging areas for engaging a wall of a circuit board through hole.
- 9. (Original) The contact of claim 8, wherein the first discrete engaging area is vertically and transversely offset from the second discrete engaging area.
- 10. (Previously presented) A contact for an electrical connector, the contact comprising:
  - a) a first contact leg;
- b) a second contact leg arranged in a substantially mirror relationship with the first contact leg; and
- c) a connecting member extending between and being integral with the first contact leg and the second contact leg;

wherein each of the first contact leg and the second contact leg includes a mating portion for engagement with one of a pair of spaced apart circuit board through holes disposed in a single circuit board, the mating portion comprising an elastically deformable beam for imparting a normal force onto a wall of a circuit board through hole upon engagement of the mating portion with a circuit board, and

wherein each of the first contact leg and the second contact leg includes a second mating portion distally located from the mating portion for a soldered connection with a second circuit board.

11. (Previously presented) A contact for an electrical connector, the contact comprising:

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- a) a first contact leg;
- b) a second contact leg spaced apart from the first contact leg;
- c) a connecting member extending between the first contact leg and the second contact leg and being integral therewith;

wherein each of the first contact leg and the second contact leg includes a mating portion for engaging one of a pair of circuit board through holes formed in a single circuit board, the mating portion comprising at least one hinge that facilitates elastic deformation of the mating portion upon engagement of the mating portion with a wall of a circuit board through hole, and wherein the mating portion consists of a first discrete engaging area defined by a first bend and a second discrete engaging area defined by a second bend for engaging a wall of a circuit board through hole.

- 12. (Canceled)
- 13. (Canceled)
- 14. (Canceled)
- 15. (Canceled)
- 16. (Previously presented) The contact of claim 11, wherein the first beam includes a shoulder oriented orthogonal to the longitudinal contact axial line for limiting insertion depth of the mating portion into a circuit board through hole.
- 17. (Previously presented) The contact of claim 16, wherein the at least one hinge is disposed in the shoulder.
  - 18. (Canceled)

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19. (Previously presented) The contact of claim 11, wherein the first discrete engaging area is both vertically and transversely offset from the second discrete engaging area.

- 20. (Original) A contact for an electrical connector, the contact comprising:

  a contact leg including a mating portion for engagement with a circuit board through hole, the mating portion including a beam comprising:
- a) a shoulder region extending orthogonal to a longitudinal contact axial line for limiting insertion depth of the mating portion into a circuit board through hole;
- b) a discrete engaging area for imparting a normal force onto a wall of a circuit board through hole; and
- c) a hinge formed in the shoulder region that facilitates elastic deformation of at least some of the mating portion upon engagement of the discrete engaging area with a wall of a circuit board through hole.
- 21. (Original) The contact of claim 20, further comprising a second contact leg that is arranged in a substantially mirror relationship with the contact leg, and a connecting member coupling the second contact leg to the contact leg.
- 22. (Original) The contact of claim 21, wherein the contact leg, the second contact leg, and the connecting member are integral.
- 23. (Original) The contact of claim 21, wherein the second contact leg has a mating portion that is configured similar to that of the contact leg.
- 24. (Original) The contact of claim 23, wherein the mating portion of each of the contact leg and the second contact leg further comprises a second discrete engaging area that is laterally and vertically offset from the discrete engaging area.
  - 25. (Original) An electrical connector comprising:

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an insulative housing; and a contact according to claim 1 disposed in the insulative housing.

26. (Original) An electrical connector comprising:

an insulative housing; and

a contact according to claim 11 disposed in the insulative housing.

27. (Original) An electrical connector comprising:

an insulative housing; and

a contact according to claim 20 disposed in the insulative housing.

28. (Previously presented) An electrical connector comprising:

an insulative housing; and

a contact according to claim 10 disposed in the insulative housing.

- 29. (Previously presented) The contact of claim 10, wherein the mating portion is parallel with the second mating portion.
- 30. (Previously presented) The contact of claim 10, wherein the mating portion is orthogonally arranged with respect to the second mating portion.
- 31. (Previously presented) The contact of claim 10, wherein the mating portion comprises at least one hinge that facilitates elastic deformation of the mating portion upon engagement of the mating portion with a wall of a circuit board through hole.
- 32. (Previously presented) The contact of claim 10, wherein the mating portion comprises two hinges that facilitate elastic deformation of the mating portion upon engagement of the mating portion with a wall of a circuit board through hole.
- 33. (Currently amended) A contact for an electrical connector, the contact comprising:

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a contact leg including: a <u>first</u> mating portion for engagement with a circuit structure through hole, the <u>first</u> mating portion comprising a deflectable beam for imparting a normal force onto a wall of a circuit structure through hole[[,]]; and a second mating portion that is distally located from the first mating portion, the second mating portion configured for a soldered engagement with a circuit structure,

wherein the deflectable beam includes a shoulder region for limiting insertion depth of the mating portion, and a hinge formed in the shoulder region.

- 34. (Previously presented) The contact of claim 33, further comprising a second contact leg spaced apart from the first contact leg.
- 35. (Previously presented) The contact of claim 34, wherein the second contact leg is arranged in a substantially mirror relationship with the contact leg.
  - 36. (Canceled)
  - 37. (Previously presented) An electrical connector comprising:
    an insulative housing; and
    a contact according to claim 33 disposed in the insulative housing.
- 38. (Currently amended) A contact for an electrical connector, the contact comprising:

a contact leg including: a <u>first</u> mating portion for engagement with a circuit structure through hole, the <u>first</u> mating portion comprising a deflectable beam for imparting a normal force onto a wall of a circuit structure through hole[[,]]; and a second mating portion that is distally located from the mating portion, the second mating portion configured for a soldered engagement with a circuit structure,

wherein the deflectable beam is bowed or angled outwardly with respect to a longitudinal contact axial line, and wherein the deflectable beam includes a shoulder region for limiting insertion depth of the mating portion.